



Memorandum

May 10, 2004

TO: House Committee on Education and the Workforce
Attention: Kathleen Smith

FROM: Adam Stoll
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SUBJECT: Consolidation Loan Rate Simulations

This memorandum presents results from a series of case simulations that you requested. We constructed these simulations to examine the loan repayment amounts a hypothetical consolidation loan borrower under the Federal Family Education Loan (FFEL) program would face under two specific interest rate formulas.

Under the first scenario examined, it is assumed that the borrower secures a fixed rate consolidation loan with a rate set by the rate setting formula currently in effect for new FFEL program consolidation loans. Thus a borrower would lock in a fixed rate on a consolidation loan equal to the weighted average of the rates in effect on the loans being consolidated rounded up to the nearest one-eighth of a percentage point, capped at 8.25%. Under this scenario, it is also assumed that the consolidation loan is comprised of underlying Stafford loans which have their interest rates set by the rate setting formula currently in effect for new Stafford loans in repayment (described below).

Under the second scenario, the borrower consolidates outstanding Stafford loans under an alternative set of rules whereby consolidation loan borrowers would no longer receive a fixed rate on consolidation loans. Instead the borrower's interest rate would continue to be determined by the Stafford loan variable interest rate setting formula even after the loans have been consolidated. Under the second scenario, a borrower consolidates his or her loans but retains a variable rate that adjusts annually based on the bond equivalent rate of the 91-day Treasury bill (T-bill) rate from the final auction held prior to June 1 + 2.3 percentage points, capped at 8.25%.

As you requested, the simulations examine how a borrower securing a consolidation loan in each year since consolidation loans have been available (1986 through 2003) would have fared under each of these specific rate setting formulas. The simulations are based on actual rates for the past and current periods. Estimates of future borrower rates under the

variable rate formula are based upon Congressional Budget Office (CBO) 91-day Treasury bill rate projections.¹

As you suggested, for the sake of this exercise we have assumed that the borrower's outstanding debt is \$22,000 (roughly the average debt of current consolidation borrowers).² Additionally, we have assumed that under each scenario the borrower would enter repayment in July of the year in question and remain in repayment continually over an entire 10- or 20-year repayment term. Under today's rules, borrowers possessing this level of debt could select either repayment term.

Table 1 presents the results from these case simulations for a 10-year repayment period. **Table 2** presents the results from these case simulations for a 20-year repayment period. Each table presents the annual percentage rate (APR) for each loan, and estimated repayment amounts. Please note that the total repayment amounts and total interest payments presented in **Table 1** and **Table 2** are estimates of actual payment amounts made over the life of the loan. No attempt has been made to compute the present value of those payments.

¹ Rate projections provide a sense of the direction in which rates might move and the magnitude of such movement. Projections do, however, contain some degree of imprecision. Based upon CBO's analysis of its own forecast record it finds that the average difference between its two-year forecasts and actual outcomes over the past 20 years was 1 percentage point. It is reasonable to assume that longer term projections may be less precise.

² General Accounting Office, *Student Loan Programs: As Federal Costs of Loan Consolidation Rise, Other Options Should Be Examined*, GAO-04-101, Oct. 2003.

Table 1. Estimated APR, Interest Payments, and Total Payments on a \$22,000 Consolidation Loan Bearing Fixed or Variable Interest Rates With 10-Year Repayment Period, Loans Originated 1986-2003

Year loan made	Fixed rate consolidation loan (Rate = T-bill rate at time of consolidation plus 2.3, raised to nearest one-eighth of a percent, capped at 8.25%)			Variable rate consolidation loan (Rate = T-bill rate plus 2.3, capped at 8.25%)		
	APR	Total interest payments	Total payments	APR	Total interest payments	Total payments
1986	8.250%	\$10,380	\$32,380	7.923%	\$9,806	\$31,806
1987	8.250%	\$10,380	\$32,380	7.778%	\$9,597	\$31,597
1988	8.250%	\$10,380	\$32,380	7.626%	\$9,392	\$31,392
1989	8.250%	\$10,380	\$32,380	7.434%	\$9,156	\$31,156
1990	8.250%	\$10,380	\$32,380	7.210%	\$8,897	\$30,897
1991	8.000%	\$10,030	\$32,030	6.962%	\$8,631	\$30,631
1992	6.250%	\$7,642	\$29,642	6.756%	\$8,423	\$30,423
1993	5.500%	\$6,651	\$28,651	6.915%	\$8,605	\$30,605
1994	6.750%	\$8,314	\$30,314	7.224%	\$8,899	\$30,899
1995	8.125%	\$10,205	\$32,205	7.236%	\$8,805	\$30,805
1996	7.500%	\$9,337	\$31,337	6.848%	\$8,263	\$30,263
1997	7.500%	\$9,337	\$31,337	6.556%	\$7,853	\$29,853
1998	7.500%	\$9,337	\$31,337	6.230%	\$7,437	\$29,437
1999	7.000%	\$8,653	\$30,653	5.876%	\$7,024	\$29,024
2000	8.250%	\$10,380	\$32,380	5.625%	\$6,753	\$28,753
2001	6.000%	\$7,309	\$29,309	5.073%	\$6,172	\$28,172
2002	4.125%	\$4,886	\$26,886	4.988%	\$6,139	\$28,139
2003	3.500%	\$4,106	\$26,106	5.353%	\$6,635	\$28,635

Source: CRS estimates based on actual 91-day T-bill rates for the 1986 through 2003 period, and CBO projections of bond equivalent rates of 91-day T-bill rates from its Mar. 2004 baseline projections for student loan programs.

Table 2. Estimated APR, interest Payments, and Total Payments on a \$22,000 Consolidation Loan Bearing Fixed or Variable Interest Rates with 20-Year Repayment Period, Loans Originated 1986-2003

Year loan made	Fixed Rate Consolidation Loan (Rate = T-bill rate at time of consolidation plus 2.3, raised to nearest one-eighth of a percent, capped at 8.25%)			Variable Rate Consolidation Loan (Rate = T-bill rate plus 2.3, capped at 8.25%)		
	APR	Total interest payments	Total payments	APR	Total interest payments	Total payments
1986	8.250%	\$22,989	\$44,989	7.567%	\$20,054	\$42,054
1987	8.250%	\$22,989	\$44,989	7.421%	\$19,555	\$41,555
1988	8.250%	\$22,989	\$44,989	7.269%	\$19,068	\$41,068
1989	8.250%	\$22,989	\$44,989	7.092%	\$18,560	\$40,560
1990	8.250%	\$22,989	\$44,989	6.898%	\$18,052	\$40,052
1991	8.000%	\$22,164	\$44,164	6.688%	\$17,544	\$39,544
1992	6.250%	\$16,593	\$38,593	6.505%	\$17,121	\$39,121
1993	5.500%	\$14,320	\$36,320	6.548%	\$17,185	\$39,185
1994	6.750%	\$18,147	\$40,147	6.694%	\$17,463	\$39,463
1995	8.125%	\$22,576	\$44,576	6.692%	\$17,424	\$39,424
1996	7.500%	\$20,535	\$42,535	6.488%	\$16,991	\$38,991
1997	7.500%	\$20,535	\$42,535	6.358%	\$16,733	\$38,733
1998	7.500%	\$20,535	\$42,535	6.219%	\$16,479	\$38,479
1999	7.000%	\$18,936	\$40,936	6.073%	\$16,228	\$38,228
2000	8.250%	\$22,989	\$44,989	5.989%	\$16,125	\$38,125
2001	6.000%	\$15,828	\$37,828	5.743%	\$15,691	\$37,691
2002	4.125%	\$10,345	\$32,345	5.756%	\$15,844	\$37,844
2003	3.500%	\$8,622	\$30,622	6.009%	\$16,550	\$38,550

Source: CRS estimates based on actual 91-day T-bill rates for the 1986 through 2003 period, and CBO projections of bond equivalent rates of 91-day T-bill rates from its Mar. 2004 baseline projections for student loan programs.

If we can be of additional assistance, please contact us at 7-4375 (Stoll) or 7-7356 (Stedman).